Wearable exoskeletal robotics and neuroprosthetics can play a role in rehabilitation and functional compensation in a number of neurological conditions, such as hemiplegia post-stroke, paraplegia or quadriplegia post-SCI, which lead to severe motor impairments. In addition to classical intensive training, these technologies can be used for assessment, to establish causality between motor intent and assistance and to effectively alter neuromechanics. We will illustrate a transition from hard rehabilitation robotics to implantable neuroprosthetics and show how they can be used to promote neuromechanical adaptations and functional improvements. This will be illustrated through this transition applied to managing pathological tremors resulting from Parkinson's disease and essential tremor.

"A wearables transition in rehabilitation and assistance in neurological conditions"

José Luis Pons, Ph.D.

Scientific Chair, Legs + Walking Lab, Shirley Ryan Ability Lab
Professor, Dept. of PM&R, Feinberg School of Medicine
Dept. of Biomedical Engineering
Dept. of Mechanical Engineering
Northwestern University

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Friday, February 10, 2023 1:00 p.m. – 2:30 p.m.
UT Austin campus, EER 1.518
Hosted by José del R. Millán, Ph.D.
Contact CARE: utcareinitiative@austin.utexas.edu